

### REMARKS

Claims 24-54 and 60-62 have been canceled without prejudice. Applicants reserve the right to pursue claims similar or identical to these claims in one or more applications claiming priority to the instant application.

Applicants have corrected an inadvertent typographical error in the title. The title should read "NANOSCOPIC WIRE-BASED DEVICES AND ARRAYS." If the Patent Office believes this title to be non-descriptive, then Applicants respectfully suggest that the title be amended near the close of prosecution, when the scope of the allowable claims has been determined.

Applicants have also amended the priority claim to state that parent application Serial No. 10/033,369 has now issued as U.S. Patent No. 6,781,166.

Claim 3 has been amended to depend from claim 1, as claim 2 was canceled in a Preliminary Amendment filed March 29, 2004.

Claim 1 has been amended to recite a nanoscopic wire that is constructed and arranged to be movable from a first position to a second position. Support for this amendment can be found in the specification, for example, on page 12, lines 25-31. Accordingly, no new matter has been added. Independent claims 56, 57, 90, 96, and 98 have also been similarly amended. Claims 56, 57, and 98 have also been amended to recite "article" instead of "device," to provide proper antecedent basis.

### Claim Objections

Claim 3 has been objected to as being in improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 3 has been amended to depend from claim 1, rather than cancelled claim 2.

### Rejections Under 35 U.S.C. §102(b)

Claims 56, 57 and 59 have been rejected under 35 U.S.C. §102(b) as being anticipated by Popovic, et al., U.S. Patent No. 4,979,149 ("Popovic").

It is not seen where in Popovic is there a disclosure or a suggestion of at least two crossed wires, as recited in independent claim 56 and 57. In Popovic, a memory element 1 includes a mechanical component 2 (i.e., a wire) positioned near a barrier layer 9, as is shown in Figs. 1 and

4. Barrier layer 9 does not appear to be a wire. For example, in Fig. 3, barrier layer 9 is shown as a common substrate that is positioned underneath three wires. Thus, it is believed that Popovic does not illustrate at least two crossed wires, and it therefore respectfully requested that the rejection of independent claims 56 and 57 be withdrawn. Claims 58 and 59 depend on claim 57, and are believed to be allowable for at least these reasons. Withdrawal of the rejections of these claims is also respectfully requested.

Rejections Under 35 U.S.C. §102(e)

Claims 1, 5, 7-10, 13, 14, 16-18, 20-23, 56-59, 90-93, 96-102, and 113 have been rejected under 35 U.S.C. §102(e) as being anticipated by Kuekes, et al., U.S. Patent No. 6,256,767 ("Kuekes").

To begin with, Applicants do not concede that Kuekes is properly prior art to the Applicants' claimed inventions. Applicants reserve the right to establish an invention date for the claimed inventions that is on or before the effective date Kuekes relied on in the Office Action.

It is not seen where in Kuekes is there a disclosure or a suggestion of a nanoscopic wire that is constructed and arranged to be movable from a first position to a second position, as is recited in independent claims 1, 56, 57, 90, 96, and 98. Instead, in Kuekes, a memory element is provided comprising at least one connector species (e.g., a molecule) at a junction connecting a pair of crossed wires (see, e.g., the abstract). Thus, it is respectfully requested that the rejection of independent claims 1, 56, 57, 90, 96, and 98 be withdrawn. Dependent claims 5, 7-10, 13, 14, 16-18, 20-23, 58, 59, 91-93, 97, 99-102, and 113 depend, directly or indirectly, from independent claims 1, 56, 57, 90, 96, or 98, and are thus believed to be allowable for at these reasons. Withdrawal of the rejection of these claims is also respectfully requested.

Rejections Under 35 U.S.C. §103(a)

Claims 3, 94, 95, and 102-112 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Keukes in view of Brandes, et al., U.S. Patent No. 6,445,006 ("Brandes").

Claims 3, 94, 95, and 102-112 depend either directly or indirectly from claims 1, 90, or 98. For at least the reasons explained above with respect to the rejection under §102(e) in view

of Kuekes, the premise of the rejections of claims 1, 90, or 98 (that Kuekes teaches all of the limitations of claims 1, 90 or 98) is believed to be incorrect. Accordingly, while Applicants do not concede that there would have been any suggestion or motivation to combine Kuekes and Brandes in the manner suggested in the Office Action, the present rejection cannot stand, regardless. Thus, withdrawal of the rejection of claims 3, 94, 95, and 102-112 is respectfully requested.

#### Double Patenting

Claims 1, 3, 5, 7-10, 13, 14, 16-18, and 20-23 have been rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 6, and 8-30 of U.S. Patent No. 6,781,166. However, the Patent Office has stated that a timely filed terminal disclaimer in compliance with 37 C.F.R. §1.321(c) may be used to overcome this rejection.

Without acceding to the correctness of this rejection, enclosed herewith is a Terminal Disclaimer with respect to U.S. Patent No. 6,781,166 in compliance with 37 C.F.R. §1.321(c) to overcome this rejection. In view of this Terminal Disclaimer, claims 1, 3, 5, 7-10, 13, 14, 16-18, and 20-23 are believed to be allowable. Withdrawal of the rejection of these claims is therefore respectfully requested.

#### CONCLUSION

In view of the foregoing amendments, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this response, that the application is not in condition for allowance, the Examiner is requested to call the undersigned at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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